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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/049,297	02/11/2002	Hiromi Matsumoto	245402004400	9879

7590

01/26/2005

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EXAMINER

RICHMAN, GLENN E

ART UNIT

PAPER NUMBER

3764

DATE MAILED: 01/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	Application No. 10/049,297	Applicant(s) MATSUMOTO ET AL.	
	Examiner Glenn Richman	Art Unit 3764	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent-term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 01 November 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-16,23-31,35 and 36 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16,23-31,35 and 36 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date: _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date: _____  | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-5, 11, 12, 23, 30, 31, 35 and 36 are rejected under 35 U.S.C. 102(b) as being anticipated by Huish et al.

Huish et al disclose a work load device providing a variable work load (10); a physiological signal measurement unit for noninvasively measuring a physiological signal during an exercise involving said work load device (col. 3, lines 34 – et seq.); and a load variation rate decision unit driven by the physiological signal obtained during the exercise that determines a load variation rate of an incremental or decremental load and changes a work load at said load variation rate (col. 3, lines 16-33).

As for claims 2-5, 23 Huish et al further disclose said physiological signal is an electrocardiographical signal or a pulsation signal (col. 3, lines 34 – et seq); said physiological signal is a heart rate variability signal obtained from an electrocardiographical signal (col. 3, lines 34 – et seq); said heart rate variability signal is a heart rate variability power signal (col. 3, lines 34 – et seq), a physiological signal measuring unit measuring a physiological signal invasively over time (col. 3, lines 49-54), a decision unit determining a physiological-signal variation pattern by matching a patter of variation of said measured physiological signal with said stored physiological-

Art Unit: 3764

signal variation patterns, and an exercise intensity determination unit determining an appropriate exercise intensity based on said determined pattern, wherein said load device provides a load set to correspond to said exercise intensity determined by said exercise intensity determination unit (col. 3, lines 34 – et seq),

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 6-10, 13-16, are rejected under 35 U.S.C. 103(a) as being unpatentable over Huish et al in view of Richter.

Huish et al do not specifically detail a power spectrum of the heart rate variability.

Richter discloses a heart rate monitor for measuring a power spectrum during exercise.

It would have been obvious to use Richter's heart rate monitor with Huish et al's exercise device, as it is well known, as taught by Richter, to use a monitor for measuring a power spectrum, to ascertain the user's heart rate potential.


As for the various species of claims 6-10, and 13-16, they are all obvious variants of conditioning relating to the heart, and are obvious in view of Huish et al and Richter.

Art Unit: 3764

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Glenn Richman whose telephone number is 703 308-3170. The examiner can normally be reached on Mon-Thurs.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Glenn Richman  
Primary Examiner  
Art Unit 3764